

52111  
FCE w/v  
8-31-10

## Commonwealth of Virginia

Registration No: 52111 AFS Plant ID: 087-00562  
Plant Name: Central Virginia Health Network Classification: True Minor  
Address: 2521 Brittons Hill Rd Region: PRO  
Report No: 270784

**AIR INSPECTION REPORT**

Inspection Date: 08/31/10 Contact Name: Scarlett Mitchell  
Type: FCE With Site Visit Contact Phone No: (804) 545-4260  
Inspector: Megan T Hayes  
Inspection Result: In Compliance  
Reason: Complete FCE (Full Compliance Evaluation)

Air Program	Subpart
MACT	0
FESOP	
SIP	

**\*\*Additional Information is Attached\*\*****Inspector Comments:**

Were EPA Brochures Provided? yes

Arrived: 4:25pm Departed: 5:25pm Weather Conditions: clear, mid 90s

Name/Title of Contact during Inspection: Scarlett Mitchell, Administrative Director, Offsite Sterile Processing

**Purpose:**

To conduct an on-site inspection of the Central Virginia Health Network and determine if the facility is in compliance with any air permits issued by the Virginia Department of Environmental Quality (VDEQ) for this facility.

**Facility and Process Description:**

The facility operates three ethylene oxide sterilizers and sterilizes hospital and surgical equipment.

**Permitting and Regulatory:**

The facility has a SOP permit dated June 21, 2010. The facility is also subject to MACT Subpart O.

**Compliance History:**

The facility was last inspected in May 2006 and the facility was deemed in compliance during the inspection. The facility does not have any recent (last 10 years) enforcement actions against them.

**Inspection Notes:**

DEQ Inspector, Megan Hayes, arrived onsite at approximately 4:25 pm on August 31, 2010. The Inspector met with Ms. Scarlett Mitchell, Administrative Director, Offsite Sterile Processing. Ms. Mitchell gave the Inspector a tour of the facility concentrating on the abators and the sterilizers. The Inspector then reviewed the records maintained by the facility. The inspection was concluded at approximately 5:25 pm on August 31, 2010.



Commonwealth of Virginia

Registration No: 52111

AFS Plant ID: 087-00562

Plant Name: Central Virginia Health Network

Classification: True Minor

Address: 2521 Brittons Hill Rd

Region: PRO

Report No: 270784

**AIR INSPECTION REPORT**

**Inspector Comments:**

Recommendations:

None

**Attachments:**

- A. 2009 and 2010 Throughput records of Loads Processed
- B. 2009 Daily Sterilization Records Yearly Report
- C. 2010 Daily Sterilization Records Yearly Report through August 5, 2010

A handwritten signature in black ink that reads "Megan Hayes".

Inspector's Electronic Signature

Approval Date: Sep 8, 2010

A handwritten signature in black ink that appears to be "B. B. K.".

Manager's Electronic Signature

Approval Date: Sep 10, 2010

Permit Date or Basis	#	Requirement Narrative	Observation	Comp Status
06-21-10	SOP 01	Equipment at this facility consists of the following:  Equipment permitted prior to the date of this permit  Reference No. EO Sterilizers Equipment Description Three 3M Model 4XL Ethylene Oxide Sterilizers Rated Capacity 0.22 lbs of sterilization compound per cycle (each unit) Federal Requirements MACT, Subpart O Original Permit Date June 10, 2005  9 VAC 80-1180 D 3 and 9 VAC 5-80-850)	The facility currently has three ethylene oxide sterilizers onsite. Sterilizer #1 was in operation during the time of the inspection.	In Compliance
06-21-10	SOP 02	Emission Controls - Ethylene oxide emissions from the three EO Sterilizers shall be controlled by two abators. The abators shall be provided with adequate access for inspection. (9 VAC 5-80-1180, 9 VAC 5-50-260 and 9 VAC 5-80-850)	The facility has two abators to control the ethylene oxide emissions coming from the sterilizers. Abator #1 controls Sterilizers #1 and #2 and Abator #2 controls Sterilizer #3.	In Compliance
06-21-10	SOP 03	Automatic Thermostats - The operating temperature of the two abators shall be maintained at a minimum of 400 degreesF when the unit is in operation. The abators shall be equipped with a thermostat to maintain the minimum temperature. In addition the	When the Sterilizers are abating, the Abators are at a temperature of approximately 420 F which can be viewed on the thermostat located above each Abator. The facility uses a strip chart to	In Compliance



## Commonwealth of Virginia

Registration No: 52111 AFS Plant ID: 087-00562  
 Plant Name: Central Virginia Health Network Classification: True Minor  
 Address: 2521 Brittons Hill Rd Region: PRO  
 Report No: 270784

## INSPECTION CHECKLIST

Permit Date or Basis	#	Requirement Narrative	Observation	Comp Status
		abators shall be equipped with continuous temperature sensors to indicate the temperatures of the abators. The temperature of the abators shall be continuously recorded when in operation. (9 VAC 5-80-1180, 9 VAC 5-50-260 and 9 VAC 5-80-850)	continuously record the temperature. They maintain copies of the strip chart records for the previous 5 years.	
06-21-10	SOP 04	Interlock System - The ethylene oxide sterilizers shall be equipped with an interlock system to prevent ethylene oxide venting to an abator prior to the abator's reaching a minimum temperature of 280 degreesF. (9 VAC 5-80-1180, 9 VAC 5-50-260 and 9 VAC 5-80-850)	There is an interlock system on each Sterilizer to prevent the ethylene oxide from venting to the Abator before the Abator reaches a temperature of 280 F. There is also an electric lock on each Sterilizer to prevent an employee from opening the Sterilizer until the cycle is complete.	In Compliance
06-21-10	SOP 05	Throughput - The three ethylene oxide sterilizers combined shall not sterilize more than 2340 cycles per year, calculated as the sum of each consecutive 12 month period. (9 VAC 5-80-1180 and 9 VAC 5-80-850)	The throughput of ethylene oxide cycles from August 2009 through July 2010 is 377 cycles. The throughput of cycles in 2009 was 378 cycles. The current throughput of cycles for 2010 through August 15 is 215 cycles.	In Compliance
06-21-10	SOP 06	Requirements by Reference - Except where this permit is more restrictive than the applicable requirement, the MACT equipment as described in Condition 1 shall be operated in compliance with the requirements of 40 CFR 63, Subpart	The facility maintains copies of their ethylene oxide use on a 12 month rolling total basis in accordance with MACT Subpart O as the facility uses less than 1 ton of ethylene oxide each year.	In Compliance



Commonwealth of Virginia

<b>Registration No:</b>	52111	<b>AFS Plant ID:</b>	087-00562
<b>Plant Name:</b>	Central Virginia Health Network	<b>Classification:</b>	True Minor
<b>Address:</b>	2521 Brittons Hill Rd	<b>Region:</b>	PRO
		<b>Report No:</b>	270784

## INSPECTION CHECKLIST

Permit Date or Basis	#	Requirement Narrative	Observation	Comp Status
		<p>O. (9 VAC 5-80-1180, 9 VAC 5-60-90 and 9 VAC 5-60-100)</p>	<p>The throughput of ethylene oxide from August 2009 through July 2010 was 1327.04 oz. The throughput for 2009 was 1330.56 oz. The current throughput for 2010 up to July 2010 is 756.8 oz.</p>	
06-21-10	SOP 07	<p>Emission Limits - Emissions from the combined operation of the three Ethylene Oxide Sterilizers shall not exceed the limits specified below:</p> <p>Ethylene Oxide 0.0008 lbs/hr 0.0077 tons/yr</p> <p>These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 2, 3, 4, and 5. (9 VAC 5-60-100, 9 VAC 5-80-1180, 9 VAC 5-50-260 and 9 VAC 5-80-850)</p>	<p>The ethylene oxide emissions from the operation of the three Sterilizers in 2009 was 0.8316 lbs. The facility is significantly under their throughput limit of 2340 cycles per year and therefore under their ethylene oxide emissions each year.</p>	In Compliance
06-21-10	SOP 08	<p>On Site Records - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Piedmont Region.</p>	<p>The facility maintains copies of the following records onsite:</p> <p>a. annual number of Sterilizer cycles (see attached)</p>	In Compliance



## Commonwealth of Virginia

Registration No: 52111

AFS Plant ID: 087-00562

**Plant Name:** Central Virginia Health Network

**Classification:** True Minor

**Address:** 2521 Brittons Hill Rd

Region: PRO

Report No: 270784

## INSPECTION CHECKLIST

Permit Date or Basis	#	Requirement Narrative	Observation	Comp Status
		<p>These records shall include, but are not limited to:</p> <p>a. Annual number of cycles, calculated monthly as the sum of each consecutive 12 month period.</p> <p>b. Annual ethylene oxide use on a 12-month rolling average basis (MACT subpart O)</p> <p>c. Abator temperature records</p> <p>d. Scheduled and unscheduled maintenance, and operator training.</p> <p>These records shall be available for inspection by the DEQ and shall be current for the most recent five years. (9 VAC 5-80-1180, 9 VAC 5-50-50, 9 VAC 5-60-90 and 9 VAC 5-80-850)</p>	<p>b. annual ethylene oxide use records for MACT Subpart O (see attached)</p> <p>c. Abator temperature records</p> <p>d. scheduled and unscheduled maintenance and operator training</p>	
06-21-10	SOP 09	<p>Right of Entry - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:</p> <p>a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;</p> <p>b. To have access to and copy at reasonable times any records</p>	<p>The Inspector was allowed onsite to observe the Sterilizers in operation as well as review all necessary records maintained by the facility during normal business hours.</p>	In Compliance



Commonwealth of Virginia

<b>Registration No:</b>	52111	<b>AFS Plant ID:</b>	087-00562
<b>Plant Name:</b>	Central Virginia Health Network	<b>Classification:</b>	True Minor
<b>Address:</b>	2521 Brittons Hill Rd	<b>Region:</b>	PRO
		<b>Report No:</b>	270784

# INSPECTION CHECKLIST

Permit Date or Basis	#	Requirement Narrative	Observation	Comp Status
		<p>required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;</p> <p>c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and</p> <p>d. To sample or test at reasonable times.</p> <p>For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency. (9 VAC 5-170-130 and 9 VAC 5-80-850)</p>		
06-21-10	SOP 10	<p>Maintenance/Operating Procedures - The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:</p> <p>a. Develop a maintenance schedule and maintain records of all</p>	<p>The facility maintains a binder in a file cabinet next to the Abators with records of all maintenance performed on the Abators as well as the written operating procedures and a copy of the training records for each employee. The facility has a contract with a company to perform maintenance on the Abators</p>	<p>In Compliance</p>



Commonwealth of Virginia

Registration No: 52111

AFS Plant ID: 087-00562

**Plant Name:** Central Virginia Health Network

**Classification:** True Minor

**Address:** 2521 Brittons Hill Rd

Region: PRO

Report No: 270784

## INSPECTION CHECKLIST

Permit Date or Basis	#	Requirement Narrative	Observation	Comp Status
		<p>scheduled and non-scheduled maintenance.</p> <p>b. Maintain an inventory of spare parts.</p> <p>c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.</p> <p>d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.</p> <p>Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request. (9 VAC 5-50-20 E and 9 VAC 5-80-850)</p>	<p>twice a year. If the Abator is not working, then the facility does not use the Sterilizers and the maintenance company is contacted. The Abators were last calibrated on August 27, 2010.</p>	
06-21-10	SOP 11	Notification for Facility or Control Equipment Malfunction - The permittee shall furnish notification to the Piedmont Region of malfunctions of the affected facility or related air pollution	The facility is aware of this condition and will comply when necessary.	In Compliance





## Commonwealth of Virginia

Registration No: 52111 AFS Plant ID: 087-00562  
 Plant Name: Central Virginia Health Network Classification: True Minor  
 Address: 2521 Brittons Hill Rd Region: PRO  
 Report No: 270784

## INSPECTION CHECKLIST

Permit Date or Basis	#	Requirement Narrative	Observation	Comp Status
		<p>control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone or telegraph. Such notification shall be made as soon as practicable but no later than four daytime business hours after the malfunction is discovered. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two weeks of discovery of the malfunction. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the Piedmont Region.</p> <p>(9 VAC 5-20-180 C and 9 VAC 5-80-850)</p>		
06-21-10	SOP 12	<p>Violation of Ambient Air Quality Standard - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.</p> <p>(9 VAC 5-20-180 I and 9 VAC 5-80-850)</p>	<p>The facility is aware of this condition and will comply when necessary.</p>	In Compliance



## Commonwealth of Virginia

Registration No: 52111 AFS Plant ID: 087-00562  
Plant Name: Central Virginia Health Network Classification: True Minor  
Address: 2521 Brittons Hill Rd Region: PRO  
Report No: 270784

## INSPECTION CHECKLIST

Permit Date or Basis	#	Requirement Narrative	Observation	Comp Status
06-21-10	SOP 13	Permit Suspension/Revocation - This permit may be suspended or revoked if the permittee:  a. Knowingly makes material misstatements in the permit application or any amendments to it;  b. Fails to comply with the conditions of this permit;  c. Fails to comply with any emission standards applicable to a permitted emissions unit, ;  d. Causes emissions from the stationary source which result in violations of , or interfere with the attainment and maintenance of, any ambient air quality standard; or  e. Fails to operate in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect at the time an application for this permit is submitted.  f. Fails to comply with the applicable provisions of Articles 6, 8 and 9 of 9 VAC 5 Chapter 80. (9 VAC 5-80-1010)	The facility is aware of this condition and will comply when necessary.	In Compliance



## Commonwealth of Virginia

Registration No: 52111 AFS Plant ID: 087-00562  
Plant Name: Central Virginia Health Network Classification: True Minor  
Address: 2521 Brittons Hill Rd Region: PRO  
Report No: 270784

**INSPECTION CHECKLIST**

Permit Date or Basis	#	Requirement Narrative	Observation	Comp Status
06-21-10	SOP 14	Change of Ownership - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the Piedmont Region of the change of ownership within 30 days of the transfer. (9 VAC 5-80-940)	The facility is aware of this condition and will comply when necessary.	In Compliance
06-21-10	SOP 15	Permit Copy - The permittee shall keep a copy of this permit on the premises of the facility to which it applies. (9 VAC 5-80-860 D)	The facility maintains a copy of the permit dated June 21, 2010 onsite.	In Compliance

CVHN Offsite Processing  
Central Sterile Processing  
DEQ Loads Processed

ETO

Date	Current Year	Last year Loads		Total Load	X	OZ	Total Oz.	Total Loads for year
	<b>378</b>							
Jan-10	34							
Jan-09		34		378	X	3.52	1330.56	
Feb-10	27							
Feb-09		32		373	X	3.52	1312.96	
Mar-10	37							
Mar-09		32		378	X	3.52	1330.56	
Apr-10	30							
Apr-09		32		376	X	3.52	1323.52	
May-10	33							
May-09		26		383	X	3.52	1348.16	
Jun-10	30							
Jun-09		29		384	X	3.52	1351.68	
Jul-10	24							
Jul-09		31		377	X	3.52	1327.04	
Aug-10								
Aug-09		34		343	X	3.52	1207.36	
Sep-10								
Sep-09		31		312	X	3.52	1098.24	
Oct-10								
Oct-09		32		280	X	3.52	985.6	
Nov-10								
Nov-09		31		249	X	3.52	876.48	
Dec-10								2009
Dec-09		34		215	X	3.52	756.8	215



BON SECOURS RICHMOND HEALTH SYSTEM

Month: **Yearly Report**

## Daily Sterilization Records

Date	Load #	Trays	Extra Pouches	Vendor Trays	Case Carts	Hospital:		ORC			
						Cultures	Controls	Bi-Grow	Sterrad	ETO	Loads
January 1, 2009	367	3169	1429	1876	2077	367	25	25	0	357	34
February 1, 2009	336	3041	1468	1522	1871	336	23	23	0	311	32
March 1, 2009	341	3117	1361	1571	2090	341	26	26	0	327	32
April 1, 2009	366	3368	1532	1795	2355	366	26	26	0	279	32
May 1, 2009	339	3178	2086	1554	2303	339	26	26	0	258	26
June 1, 2009	358	3546	1533	1706	2278	358	26	26	0	263	29
July 1, 2009	368	3514	1614	1849	2311	368	26	26	0	288	31
August 1, 2009	320	3157	1642	1436	2116	320	28	28	0	295	34
September 1, 2009	336	3202	1491	1805	2223	336	25	25	0	295	31
October 1, 2009	359	3611	1754	1828	2358	359	26	26	0	279	32
November 1, 2009	312	3067	1543	1553	2050	312	23	23	0	254	31
December 1, 2009	322	3412	1455	1620	2200	322	24	23	0	258	34
<b>Days Total</b>	<b>4124</b>	<b>39382</b>	<b>18908</b>	<b>20115</b>	<b>26232</b>	<b>4124</b>	<b>304</b>	<b>303</b>	<b>0</b>	<b>3464</b>	<b>378</b>

Total Trays Processed 63,213

252.1066667

Average Instrs. per Tray 75 4,740,983

Total Case Carts Processed 26232



BON SECOURS RICHMOND HEALTH SYSTEM

Month: **Yearly Report**

## Daily Sterilization Records

Date	Load #	Trays	Extra Pouches	Vendor Trays	Case Carts	Hospital:		ORC			
						Cultures	Controls	Bi-Grow	Sterrad	ETO	Loads
January 1, 2010	331	3405	1721	1653	2224	331	25	25	0	302	34
February 1, 2010	326	3202	1582	1786	2157	326	24	24	0	275	27
March 1, 2010	366	3579	1885	1831	2312	366	25	23	0	324	37
April 1, 2010	330	3164	2069	1726	2163	330	26	26	0	265	30
May 1, 2010	314	3138	1442	1592	2114	314	25	25	0	252	33
June 1, 2010	342	3517	1924	1718	2300	342	25	25	0	224	30
July 1, 2010	311	3294	1818	1563	2087	311	24	24	0	145	24
August 1, 2010	16	169	81	49	125	16	1	1	0	0	0
September 1, 2010	0	0	0	0	0	0	0	0	0	0	0
October 1, 2010	0	0	0	0	0	0	0	0	0	0	0
November 1, 2010	0	0	0	0	0	0	0	0	0	0	0
December 1, 2010	0	0	0	0	0	0	0	0	0	0	0
Days Total	2336	23468	12522	11918	15482	2336	175	173	0	1787	215

up to August 5, 2010

## Hayes, Megan (DEQ)

---

**From:** Hayes, Megan (DEQ)  
**Sent:** Friday, September 10, 2010 11:21 AM  
**To:** 'scarlett\_mitchell@bshsi.org'  
**Cc:** Ehrhart, Lisa (DEQ)  
**Subject:** DEQ Inspection on August 31, 2010

**Attachments:** 52111 Onsite Inspection on 8-31-2010.pdf

Ms. Mitchell,

Attached is a copy of the report generated as a result of the inspection conducted at Central Virginia Health Network on August 31, 2010. Please review the report, paying particular attention to any comments or observations.

The inspection report is based on observations made during the on-site inspection and/or information reviewed in support of report generation. The existence of an inspection report indicating compliance with applicable requirements listed in the report is no verification that your facility complied with all applicable provisions of the Regulations for the Control and Abatement of Air Pollution. Regional staff will evaluate all sources for compliance with the Regulations on a continuing basis.

If you have any questions concerning the report or your facility's requirements, please contact me at 804-527-5144 or e-mail me at [megan.hayes@deq.virginia.gov](mailto:megan.hayes@deq.virginia.gov).



52111 Onsite  
Inspection on 8-3...

Thanks,

**Megan Hayes**

Air Compliance Inspector  
Piedmont Regional Office  
VA Department of Environmental Quality  
804.527.5144 (phone)  
804.527.5106 (fax)  
[megan.hayes@deq.virginia.gov](mailto:megan.hayes@deq.virginia.gov) (e-mail)